

ABSTRACT

A fluid film is formed stably over a long distance from a nozzle without breaking a slit fluid jet by allowing fluid flow out from a slit to form a slit fluid jet. A crossed flow is superimposed causing a flip-flop phenomenon upon the slit fluid jet. Energy of a fluctuation velocity component of the slit fluid jet is absorbed into a vibration component of a flip-flop crossed flow so as to form a stable fluid film.